

AMENDMENTS TO THE CLAIMS

This list of claims will replace all prior versions, and listings, of claims in the application. The status of each claim is indicated in parenthetical expression following the claim number.

Listing of Claims

1-96. (Cancelled).

97. (Original) A method for making a polymer material comprising:

- (a) derivatizing carbon nanotubes with functional moieties to form derivatized carbon nanotubes, wherein the functional moieties are derivatized to the carbon nanotubes utilizing a diazonium specie;
- (b) dispersing the derivatized carbon nanotubes in a polymer.

98. (Original) The method of claim 97, wherein the carbon nanotubes are single-wall carbon nanotubes.

99. (Previously presented) The method of claim 97, wherein the functional moieties are chemically bound to the polymer.

100. (Previously presented) The method of claim 97, wherein the functional moieties are not chemically bound to the polymer.

101. (Previously presented) The method of claim 97, wherein the functional moieties are removed after the dispersing step.

102. (Original) The method of claim 101, wherein the removal step comprises heating the dispersal of the derivatized carbon nanotubes and the polymer to a temperature at least about 250°C.

103. (Original) The method of claim 101, wherein the removal step comprises heating the dispersal of the derivatized carbon nanotubes and the polymer to a temperature at least about 600°C.

104. (Previously presented) The method of claim 97, wherein the functional moiety is operable to react with a curing agent.

105. (Previously presented) The method of claim 104, wherein the polymer comprises the curing agent.

106. (Original) The method of claim 104, wherein the curing agent is dispersed in the dispersal of the derivatized carbon nanotubes and the polymer.

107. (Previously presented) The method of claim 104, wherein the curing agent comprises an agent selected from the group consisting of diamines, polymercaptans, and phenol containing materials.

108. (Previously presented) The method of claim 97, wherein the functional moiety is operable to react with a epoxy portion.

109. (Previously presented) The method of claim 108, wherein the polymer comprises the epoxy portion.

110. (Previously presented) The method of claim 104 further comprising curing the dispersal of the derivatized carbon nanotubes and the polymer.

111. (Original) A polymer material comprising:

(a) derivatized carbon nanotubes, wherein the derivatized carbon nanotubes comprise a diazonium species moiety; and

(b) a polymer, wherein the derivatized carbon nanotubes are dispersed in the polymer.

112. (Original) A polymer material comprising:

- (a) derivatized carbon nanotubes, wherein the derivatized carbon nanotubes were derivatized utilizing a diazonium species; and
- (b) a polymer, wherein the derivatized carbon nanotubes are dispersed in the polymer.

113. (Original) A polymer material made by the process comprising:

- (a) derivatizing carbon nanotubes with functional moieties to form derivatized carbon nanotubes, wherein the functional moieties are derivatized to the carbon nanotubes utilizing a diazonium specie;
- (b) dispersing the derivatized carbon nanotubes in a polymer.

114. (Previously presented) The polymer material of claim 112, wherein the carbon nanotubes are single-wall carbon nanotubes.

115. (Previously presented) The polymer material of claim 112, wherein the functional moieties are chemically bound to the polymer.

116. (Previously presented) The polymer material of claim 112, wherein the functional moieties are not chemically bound to the polymer.

117. (Previously presented) The polymer material of claim 112, wherein the functional moiety is operable to react with a curing agent.

118. (Original) The polymer material of claims 117, wherein the polymer comprises the curing agent.

119. (Original) The polymer material of claim 117, wherein the curing agent is dispersed in the dispersal of the derivatized carbon nanotubes and the polymer.

120. (Previously presented) The polymer material of claim 117, wherein the curing agent comprises an agent selected from the group consisting of diamines, polymercaptans, and phenol containing materials.

121. (Previously presented) The polymer material of claim 112, wherein the functional moiety is operable to react with a epoxy portion.

122. (Original) The polymer material of claims 121, wherein the polymer comprises the epoxy portion.

123. (Previously presented) The polymer material of claim 117, wherein the process further comprises curing the dispersal of the derivatized carbon nanotubes and the polymer.

124-129. (Cancelled).

130. (Previously presented) The method of claim 108 further comprising curing the dispersal of the derivatized carbon nanotubes and the polymer.

131. (Previously presented) The polymer material of claim 111, wherein the carbon nanotubes are single-wall carbon nanotubes.

132. (Previously presented) The polymer material of claim 113, wherein the carbon nanotubes are single-wall carbon nanotubes.

133. (Previously presented) The polymer material of claim 121, wherein the process further comprises curing the dispersal of the derivatized carbon nanotubes and the polymer.